



NATIONAL WEATHER SERVICE ENGINEERING HANDBOOK NO. 2

Engineering Training

ENGINEERING TRAINING (EHB-2)

NOTE:

Portions of this handbook may require change or deletion or may be superseded by release of the "I" series of chapters of the National Weather Service Operations Manual covering training policy and training programs.

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1. Purpose. The Engineering Training Handbook, hereinafter "the Handbook," is provided to apprise the National Weather Service (NWS) engineering staff of policies and standard procedures pertaining to the Engineering Training Program. Information is provided on the types of training available and the administrative procedures required to enroll in the appropriate training.

1.1 Scope. The Handbook provides supervisors and employees with a summary of training of special interest to those associated with operational NWS engineering programs. The Handbook is intended to supplement Chapter 10 of the Department of Commerce (DOC) Employee Handbook (Appendix 2) and Office of Personnel Management (OPM) guidance (Appendix 3).

1.2 Handbook Maintenance. The Handbook will be kept current and amended as necessary to reflect training program changes. As required, substitute pages will be provided. Transmittal memorandums will be consecutively numbered.

1.2.1 Suggestions and Recommendations. Suggestions and recommendations regarding the Handbook should be forwarded through administrative channels to the Chief, Engineering Division, W/OS03, NOAA, National Weather Service, Silver Spring Metro Center #2, 1325 East-West Highway, Silver Spring, Maryland 20910.

1.2.2 Inquiries. Inquiries regarding the engineering training courses scheduling should be directed to the Electronics and Engineering Division Program Assistant, NWS Training Center, 617 Hardesty Street, Bldg. 9, Room 116, Kansas City, Missouri, 64124-3097.

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2. Program Objectives. The Engineering Training Program is designed to develop the specialized technical and professional competence necessary to meet the NWS engineering staff's responsibilities in an increasingly complex technology. Specifically, education, training, and development programs are provided to:

- a. increase the efficiency and economy of NWS operations;
- b. develop a technically trained staff;
- c. motivate employees to make maximum contributions to the NWS mission: and
- d. assist employees achieve their highest potential.

The program assists employees acquire the knowledge and skills needed to install, maintain, modify and report on NWS meteorological and hydrological equipment and facilities. Reports are used to monitor the technical performance of operational systems and equipment established NWS national standards.

2.1 Description of the Program. The program uses training to promote an efficient and orderly technical growth. This is accomplished by using any combination of on-the-job training, correspondence study including the NWSTC lending library, computer based training, college/graduate school, industrial, interagency, and NOAA resident courses. Specialized engineering training unique to NWS requirements, not otherwise available, is provided by the NWS Training Center (NWSTC). Job-related or career-oriented courses are available to all employees. Those interested in the full scope of available NOAA training programs should consult Chapter 10 of the DOC Employee Handbook (Appendix 2) and OPM guidance (Appendix 3).

2.2 Weather Service Headquarters (WSH) Responsibilities. The Engineering Division, WSH is responsible for developing, implementing, and guiding effective training programs to meet the electronics and facilities engineering requirements of the NWS. The Engineering Division is also responsible for coordinating the administrative aspects of the program with the appropriate personnel within NOAA's Office of Administration and with the regional headquarters.

2.3 Regional Headquarters (RHQ) Responsibilities. The regional headquarters are responsible for determining needs, scheduling of personnel, and evaluating training programs to assure the

availability of technically qualified regional headquarters and field staffs to meet NWS field engineering requirements. The responsibility for directing the electronics and facilities training programs is assigned to the chief of the regional Systems Operations Division (SOD). Field staff supervisors are responsible for informing regional headquarters of training requirements and training effectiveness.

2.4 Regional Engineering Training Focal Point Responsibilities.

The duties of the regional engineering training focal points are included as part of one or more existing positions assigned to each regional SOD. The regional engineering training focal point, normally the Electronics Program Manager (or designee), is responsible for the operational aspects of the regional electronics engineering training program; and the facilities designee is responsible for operational aspects of regional facilities training for sector facilities technicians (SFT). Specifically, the regional engineering training focal points:

- a. determine annual engineering training requirements and plans to implement their programs;
- b. apprise and advise the regional headquarters (RH) and field engineering staff regarding available training programs;
- c. assist the Electronic Systems Analyst (ESA) in developing individual job and career development training programs; and the facilities designee provides the same services for SFTs;
- d. coordinate training details and evaluate programs to ensure that all technicians are technically qualified to effectively install, maintain, and report on electronics maintenance and facilities activities, as appropriate; and
- e. issue, as appropriate, periodic reports to Chief, Engineering Division, WSH; and Director, NWSTC.

2.5 ESA/Facilities Designee Responsibilities. ESAs/facilities designees are responsible for determining training needs, guiding, counseling, evaluating, and encouraging their subordinates to participate in appropriate programs to develop their potential for the performance of official duties. Specifically, they:

- a. execute on-the-job training programs:

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- b. identify training needs and recommend or conduct appropriate training programs;
- c. counsel and assist subordinates in developing and accomplishing career objectives;
- d. keep employees apprised on the training available:
and
- e. inform regional headquarters of training requirements and effectiveness.

Guidelines regarding the ESA's/facilities designee's responsibilities, general types of training available, and related information are contained in Chapter 10 of the DOC Employee Handbook (Appendix 2) and OPM guidance (Appendix 3). Supervisors should participate in training programs to develop the necessary skills required to conduct effective on-the-job training programs.

2.6 Employee Responsibilities. Each employee is responsible for their own self-improvement plan. The employee's career and advancement depend on individual initiative, technical ability, and contributions to the total equipment service program.

Continuous technological advancements and changes make training essential to avoid technical obsolescence. The training program attempts to offer training opportunities to assist each employee achieve their maximum effectiveness and potential. It is the responsibility of the employee to take advantage of training opportunities. However, training is not an employee entitlement. For additional information, see section 8.

2.7 Examination of Maintenance Training Needs of The NWS Field Engineering Staff. Periodic examination of maintenance needs include:

- a. critical review of existing courses;
- b. revising or dropping existing courses; and
- c. development of new courses.

2.7.1 New and Revised Courses. Periodic examination of maintenance needs is the responsibility of the Engineering Division, WSH. Specifically, with respect to training, each program engineer is responsible for ensuring in their respective area that the NWSTC is provided adequate and timely information to develop new courses to:

- a. meet changing maintenance needs of operational equipment; and
- b. meet the needs of future equipments as they become operational.

2.7.2 Existing Courses. Each system program leader is responsible for coordinating periodic examination of existing courses related to their specific program area.

2.7.3 Coordination of the Examination Process. Each program engineer is responsible for coordinating the findings of reviews through the Maintenance, Logistics, and Facilities Branch, WSH; Chief, Engineering Division, WSH; and Chief, Systems Integration Division, WSH, to the Chief Engineering Division, NWSTC. As applicable, it is the responsibility of the Office of Systems Operations' (OSO) Maintenance, Logistics, and Facilities Branch to also coordinate with regional training coordinators.

2.7.4 NWSTC Responsibilities. The responsibilities of the NWSTC include developing topics defined by WSH into applicable courses; participating in review of equipment manual specifications, course evaluation and planning, etc. Engineering training is conducted in accordance with maintenance policy established by the OSO's Engineering Division.

3. National Weather Service Training Center (NWSTC). NWSTC provides training courses in the engineering, management, and meteorological/hydrological disciplines. In engineering, NWSTC provides the theoretical and the practical training authorized by the OSO's Engineering Division in the installation, activation, calibration, maintenance, system administration, and reporting on operational equipment and facilities unique to the NWS. Courses are designed to raise the standards of performance by employees of their official duties to the maximum possible level of proficiency in order to increase economy and efficiency in the operations of the NWS through an effective engineering program.

3.1 Resident Courses. Resident training is conducted at the NWSTC, 617 Hardesty Street, Kansas City, Missouri 64124-3097, for electronics and facilities technicians, cooperative program managers, team leaders, and engineers. These courses cover the installation and maintenance (including reporting) of all major operational systems deployed by the NWS. Because of the limited need for specialized courses in the facilities area, it has not been practical to offer regular resident courses for facilities technicians at NWSTC. Requisite facilities training is provided through non-resident courses such as interagency courses and correspondence courses.

3.2 American Council on Education (ACE) Recommendations. The ACE has evaluated NWSTC courses and recommended many of them for college credit. Additional information is contained in the current NWSTC catalog. Employees applying for admission to a college should inquire about the possibility of receiving credit for NWSTC courses. Once the college agrees to consider the course(s) for credit, the employee should write or call the NWSTC registrar and request that a transcript be sent directly to the university concerned.

3.3 Non-resident Courses. Correspondence and on-the-job refresher courses are provided by the NWSTC to meet training needs which do not require NWSTC resident training. These courses are designed to update or supplement resident training. The courses are developed to meet program needs as determined by the administrative and field staffs. The field staffs are apprised of the training available by engineering training notes and by revisions of the NWSTC Catalog of Courses (see 3.4 below). The courses are provided to employees upon request to the correspondence coordinator, NWSTC through regional headquarters and supervising offices.

3.4 NWSTC Catalog of Courses. A description of courses offered by the NWSTC is contained in its catalog of courses. Course

objectives, content, length, prerequisites, and materials required are listed for each course. Copies of the catalog are distributed to the NWS engineering staff, headquarters stations of engineering personnel, and others interested in the training program. The catalog is revised annually.

3.5 Engineering Training Schedule of Courses. The engineering training schedule of courses is developed by the Director, NWSTC, and approved by the Engineering Division, WSH, to meet the highest priority needs identified by regional surveys and program requirements. A copy of the current annual schedule is provided to each RHQ and WSH prior to the beginning of each fiscal year. The NWSTC is kept apprised regarding all changes in training slot assignments and training focal points. Scheduling changes are coordinated through WSH and Regional Headquarters.

3.6 Selection of Trainees. Trainees are selected on the basis of supervisory and/or maintenance program manager recommendations and individual requests. All requests are forwarded to the attention of the regional engineering training coordinators who assign priorities on the basis of program requirements and training slots available. All regional training requests must receive approval at the regional headquarters level. Regional training requests are then priority ranked based upon operational requirements and available resources.

3.7 Enrollment Procedures. Employees selected to fill training slots at the NWSTC are notified by their regional headquarters or supervisory offices and instructed to prepare both a Travel Order (Form CD-29) and a Request, Authorization, Agreement and Certification of Training [Standard Form (SF)-182]. The NWSTC is notified by training focal points as soon as possible but not less than 3 days in advance of the class starting date of the names of employees selected, their official duty stations, the courses they will attend, and any subsequent cancellations or substitutions.

3.8 Travel Funding for NWSTC Courses. Funding for engineering training travel expenditures will be provided by the OSO and managed by the Chief, Engineering Division, WSH. These funds will cover only those NWSTC training plans approved by the Chief, Engineering Division, WSH, to ensure that priority needs are met and plans are within budgetary constraints.

3.9 Certificate of Training. Certificates of training are issued to employees for each course satisfactorily completed.

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3.9.1 Equipment-Specific Courses. In equipment-specific courses, satisfactory completion consists of demonstrating, through classroom and laboratory exercises, the ability to independently maintain, calibrate, and report on specific equipment to specified NWS national standards. Employees who fail to meet course requirements may obtain delayed certificates through the procedures of paragraph 3.10 et seq. Training Waiver Certificates may be obtained by meeting the qualification requirement specified in paragraph 3.11 et seq.

3.9.2 Broad-Based Courses. In broad-based courses (i.e., technology based courses, programming courses, management courses, etc.), satisfactory completion consists of independently demonstrating mastery of course material, concepts, principles, etc., to an acceptable level of practical application. Employees who fail to meet course requirements may obtain delayed certificates through the procedures of paragraph 3.10 et seq.

3.9.3 Facilities Courses. Facilities training is offered on facilities related equipment. This typically includes station/site emergency power generation/uninterruptable power systems and equipment, heating, ventilation, air conditioning systems, and hydrogen generation equipment. Training consists of any combination of on-the-job and factory. Training for hydrogen generation equipment is usually conducted at the NWSTC.

3.9.4 Safety and Hazardous Materials Courses. Policy is in the planning stages to offer training on these topics as any combination of on-the-job, stand-alone/integrated NWSTC resident, regionally/NOAA offered, self-study or Government/industry sponsored.

3.10 Delayed Certificates of Training. For those employees who do not satisfactorily complete course requirements, an opportunity is provided them to later qualify. The process of delayed qualification, if satisfactorily completed, results in the issuance of a delayed certificate of training. Employees from both equipment-specific and broad-based courses are eligible. The required process is detailed in paragraph below.

An employee who does not meet minimum course standards may apply for consideration for a delayed certificate as follows:

- a. A minimum of 6 months of supervised field experience and training, after taking the NWSTC course, is required. During this time in equipment-specific courses, the candidate must clearly demonstrate to the ESA or Meteorologist-In-Charge (MIC) the ability to independently maintain, calibrate., and report on the

system in question to specified NWS national standards. Correspondingly, in broad-based courses, the candidate must clearly demonstrate the ability to independently apply the principles of the course to specified NWS national standards.

- b. A letter requesting the delayed certificate is prepared by the candidate's ESA or MIC, certifying that the applicable requirements in (a) above have been met. The letter should be addressed to the regional electronics program manager (EPM) for approval. Approved requests for delayed certification will be forwarded to the Director, NWSTC. Disapproved requests will be returned to the ESA or MIC for additional justification.
- c. If approved by the Systems Operations Division (SOD) chief, a special proctored examination will be arranged with the Director, NWSTC. The location of the examination is at the discretion of the EPM. The EPM may waive the re-examination requirement for equipment-specific courses only.
- d. If the candidate successfully completes the examination, the candidate is issued the delayed certificate. If the candidate fails the examination, the candidate is advised of the deficiencies. Information concerning the examination results is provided by letter to the SOD chief or designee for appropriate action.
- e. If the re-examination is waived by the EPM on an equipment specific course, then the certificate will be issued by the NWSTC. On this certificate, the instructor signature space will be left blank for the EPM's certifying signature. The certificate will also state "Delayed Certificate" on it.

3.11 Waiver of Training. On a case-by-case basis waivers of essential training may be granted to electronics technicians possessing prior training or experience who, through practical examinations, demonstrate their ability to maintain, calibrate, and report on equipment to NWS national standards. A certificate of training will not be issued to an employee for any course the employee has received a training waiver.

3.11.1 Eligibility Requirements. A candidate for a waiver of training must meet one of the following two minimum requirements:

- a. Formal training on identical equipment outside the NWS, plus a period of not less than 1 year in the NWS during

and report on the system to ensure reliable service to specified NWS national standards; or

- b. Three years of NWS experience during which time the candidate has demonstrated to the ESA or MIC the ability to independently calibrate, maintain, and report on the system to ensure reliable service to specified NWS national standards.

3.11.2 Procedure for Completing Waiver Action. Use the following procedure to complete a waiver action:

- a. A letter requesting and justifying a training waiver must be prepared by the candidate's ESA or MIC, and forwarded to the EPM. The letter must detail specific reasons why the candidate is believed to be so qualified that the expenditure of training resources would not be in the best interest of the NWS.
- b. If approved by the EPM, the original is annotated to show approval, date, signature, and title, and forwarded to the Chief, SOD, for final consideration.
- c. If approved by the Chief, SOD, the original will be annotated accordingly and returned to the candidate through supervisory channels. A copy will be forwarded to the Director, NWSTC.
- d. The chief of the regional SOD arranges with the Director, NWSTC, for the special examination. However, they may agree to waive the examination requirement. If the examination is waived, a training waiver will be issued.
- e. If the candidate successfully completes the examination, a training waiver is issued indicating all requirements for the equipment system involved have been satisfied.
- f. If the candidate fails the examination, the Director, NWSTC, advises the candidate and the candidate's supervisor accordingly, explaining the deficiencies found and any corrective action possible.

4. Internal Training. The Department of Commerce and NOAA offer a wide variety of courses within their respective training programs. Those programs include both general and specialized courses unique to certain activities; Training offered at the NWSTC (see Section 3) is an example of a specialized type of program. General courses, for example, defensive driving techniques, use of effective English, writing, automatic data processing system, safety; personnel supervision, group performance, etc., are applicable to most types of activities. Many of these general courses offer desirable training for the engineering staff. NOAA bulletins are circulated to announce intra-agency training programs. Information regarding available courses can be obtained through the regional engineering training coordinator or the servicing personnel office. Engineering staff employees are encouraged to take advantage of courses which will assist them in developing their technical and professional competence. Supervisors should bring available courses to the attention of their assistants and encourage them to participate in training which will enable them to more effectively perform their duties.

4.1 Enrollment in Internal Courses. Requests for authorization to enroll in internal courses should be submitted through supervisory channels to the regional engineering training coordinator or project director. Written approval for training should be obtained prior to course attendance. Application should be via an SF-182.

4.2 Funding of Internal Training. Funds to support internal training programs are normally provided at the regional headquarters or project level. Exceptions are programs previously arranged and authorized at the NOAA or WSH level.

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5. Interagency Training. Resident and correspondence training offered by agencies other than the Department of Commerce is utilized whenever available courses apply to NWS engineering activities. NWSTC facilities permitting, reciprocity is practiced with other government agencies and foreign nationals.

Excellent interagency training programs are frequently offered at various localities. Information regarding these courses and registration requirements can be obtained from the regional engineering training coordinator or the servicing personnel office. Employees are encouraged to take advantage of job-related courses. The standard procedure for obtaining approval and enrolling through the regional headquarters should be followed. The Engineering Division, WSH, should be kept apprised regarding available interagency courses which will serve training needs of the NWS engineering programs. Local interagency training is supported -from regional headquarters funds.

6. Non-Government Training. A variety of training is available from commercial sources. The programs most frequently utilized by the engineering staff are correspondence; trade schools; evening, part-time, and full-time college or university courses; industrial training; and seminars. Non-Government training is normally utilized for special courses not available under internal or interagency programs.

6.1 Correspondence Programs. Correspondence courses are a popular training method for improving and maintaining the quality of technical expertise. Many colleges and universities grant credit toward degrees for correspondence studies. The NWSTC is the focal point for correspondence courses from several sources. A current list of all available correspondence courses is published each year in the NWSTC Catalog of Courses.

Correspondence has numerous advantages. In addition to being convenient and clearly presented by recognized authorities, the courses are written with practical applications in mind. In many cases, much of the instructive material may be applied directly to the job. This has the advantage of reinforcing concepts recently learned and helps develop a sound understanding of the principles involved.'

6.1.1 Enrollment in Correspondence Courses. Correspondence courses may be ordered by submitting an SF-182, "Request, Authorization, Agreement, and Certification of Training," through the station supervisor and the NWSTC. A separate SF-182 should be submitted for each course.

Courses must be directly related to the job and specific objectives of the training must be explained in item "16" of the SF-182.

Employees may be enrolled in no more than two correspondence courses at the same time and must successfully complete them within 9 months after receipt of course materials. Employees who do not complete courses within that time must make a written request to Coordinator, Directed Correspondence Program, NWSTC (see para. 1.2.2), for an extension.

Some courses are kept in stock and will be shipped immediately. Other courses must be ordered and will take from 3 weeks to 8 weeks to receive.

Certificates are issued (except as noted) upon completion of each course and a duplicate certificate is sent to the regional personnel office for inclusion in employee's personnel file.

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6.1.2 Funding of Correspondence Training. Costs for correspondence courses for the NWS field engineering staff are supported by the Engineering Division, WSH. Associated training reports are prepared by the NWSTC. Personnel from special projects desiring to take advantage of this training under the group enrollment plan should include on their enrollment requests the NOAA organization code and task number to which the costs are to be charged.

6.2 University Training. College and university job-related and career program courses are available to engineering personnel. The programs consist of evening, part-time, full-time short-term, and full-time long-term courses. Employees interested in college courses should obtain complete information from the college of their choice and obtain the concurrence of their supervisors and regional headquarters well in advance of the enrollment dates. Detailed information regarding the qualification requirements for the various college and university training programs is available in Chapter 10, Training and Career Development, of the DOC Employee Handbook (Appendix 2) and OPM guidance (Appendix 3).

6.2.1 Enrollment and Funding of University Training. Requests for enrollment at Government expense should be forwarded to the regional headquarters. The selection of candidates and funding for training of engineering personnel will be in accordance with regulations contained in the DOC Employee Handbook, Chapter 10. Application should be via an SF-182.

6.3 Industrial Training. Industrial training is frequently arranged with equipment manufacturers of new systems and for standard commercial types of equipment used in operational NWS programs. Industrial (factory) training is often included in equipment procurement contracts to familiarize a cadre of WSH and WSRH engineers and technicians, and NWSTC instructors with new equipment. NWSTC instructors utilize factory training and vendor supplied technical material to develop equipment training courses for field maintainers. Factory training is occasionally provided to field maintainers in response to special requirements or needs.

Factory maintenance training is arranged for standard off-the-shelf commercial equipment in cases where such training meets NWS requirements. Enrollments are arranged by the Engineering Division, WSH, upon receiving approved requests from regional headquarters.

6.3.1 Selection of Candidates for Industrial Training. Regional headquarters are kept apprised of available industrial training. SIB managers select personnel for training based on operational requirements.

6.3.2 Funding of Industrial Training. Per diem and travel costs for employees concerned with the installation and activation of new equipment (i.e., initial training) are normally supported by program funds. Travel and per diem costs for ongoing maintenance training are supported by WSH.

6.4 Meetings and Seminars. Engineering personnel are encouraged to attend job related professional, technical, and scientific meetings and seminars. Institutes, professional engineering and trade societies, manufacturers, universities, trade schools, and specialized training contractors cover a variety of subjects related to NWS engineering activities. The area of greatest value is new engineering technology and the application of new concepts and techniques to current engineering programs.

6.4.1 Enrollments in Meetings and Seminars. Prior written approval to attend meetings and seminars involving official hours of duty or travel cost should be obtained from the regional headquarters through supervisory channels. Meetings conducted specifically for training, such as workshops or seminars having tuition fees, are considered full-time, short courses. An SF-182 should be issued to cover meetings or seminars involving training.

6.4.2 Funding of Meetings and Seminars. Enrollment fees, tuition charges, and the associated travel costs are supported by regional funds.

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7. Evaluation of Training. Evaluations are necessary to determine the effectiveness of the training process. New programs are developed and existing courses revised on the basis of trainee reactions and recommendations. Courses are audited or course syllabuses reviewed on a periodic basis by the Engineering Division, WSH, to ensure consistency with national maintenance policies (see 2.7 et seq.).

7.1 Reports Required. The evaluations section, copy 9, of an SF-182 should be prepared by the indicated personnel within 90 days after completion of all Government supported engineering training. The form should be submitted in triplicate to the trainee's servicing personnel office, through the trainee's immediate supervisor and the regional engineering training focal point.

Special evaluations may be requested for non-resident Government supported training (e.g., on-the-job and correspondence courses). These evaluations should be returned through the same channels as an SF-182, unless special instructions are provided.

7.2 Comments on Training. The effectiveness of the engineering training program has been greatly influenced by the many beneficial suggestions received from the field engineering staff. The employee and the employee's supervisor can best determine if the training provided enables the employee to effectively accomplish the employee's mission. Objective training evaluations, comments, and suggestions are required and requested to ensure that available training resources are utilized to best meet the needs of NWS maintenance programs.

8. Selection of Courses. Rapid changes in engineering technology and the resulting volume of new information may make it difficult for employees to select courses which will best meet professional development needs. The best procedure is to concentrate on training that applies directly to the present job first, then pursue career development training.

Requests for training should be deferred if the employee has any doubt regarding professional development objectives or his/her ability to complete the program. Employees are encouraged to "talk things over" with the ESA or MIC and set up a written individual development plan (IDP). Do not forget to get it approved through normal training channels.

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9. Withdrawals from Engineering Division Sponsored Training. If an employee is unable to attend or satisfactorily complete training as approved, the employee must immediately notify the servicing personnel office through the same channels as the original request, with copies for the regional SOD and the NWSTC. If withdrawal from an incomplete course becomes necessary, the notification should clearly state the reasons. If the reasons are deemed invalid or notification is not made, the employee may be required to pay the training costs and/or receive disciplinary action. If the employee is unable to finish a course because of lack of prerequisite training or personal problems, the employee should so advise. Every effort will be made to provide prerequisite training or assistance to enable the employee to successfully complete the training objectives.

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10. Engineering Training Notes. Periodically, engineering training notes may be issued to keep field personnel apprised of activities in the various engineering training programs. Information is provided on correspondence, industrial, on-the-job, and resident training available, including annual NWSTC course schedules. Prerequisite training is suggested for new equipment involving new concepts. Manuals and textbooks are provided with suggested study areas applicable to NWS engineering programs.

10.1 Issuance of Training Notes. Inputs for engineering training notes are derived from and coordinated with WSH engineering activities, new program requirements, NWSTC projects, and recommendations from the field engineering staffs through regional headquarters. The ESAs and facilities engineering supervisors should periodically assure themselves that each assistant is familiar with, and has available, a complete set of current notes. Missing material should be requested through the regional engineering training coordinator. The WSH training focal point, located within the Engineering Division, coordinates the training note process.

10.2 Engineering Training Note Index. All training notes issued prior to March 10, 1993, have been cancelled.

APPENDIX 1

Acronyms

<u>ACRONYM</u>	<u>Text Defined</u>
ADP	Automatic Data Processing
AES	Discontinued term--see RMS
CD-29	Commerce Department Form No. 29--Travel Order
CEB	Discontinued term--see EPM
DOC	Department of Commerce
EHB-2	Engineering Handbook No. 2 (Engineering Training)
EPM	Electronic Program Manager [formerly chief electronics branch (CEB)]
ESA	Electronic Systems Analyst
et seq.	Et sequens [L] and those (sub paragraphs) that follow
FTS	Federal Telephone System
IDP	Individual Development Plan
MIC	Meteorologist-In-Charge
NOAA	National Oceanic and Atmospheric Administration
NWSTC	National Weather Service Training Center
NWS	National Weather Service
OSO	Office of Systems Operations
OPM	Office of Personnel Management
RH	Regional Headquarters (Eastern, Southern, etc.)
RMS	Regional Maintenance Specialist [formerly area electronics supervisor (AES)]
SF-182	Standard Form No. 182--Request, Authorization, Agreement and Certification of training
SFT	Sector Facilities Technician
SIB	Systems Integration Branch (regional)
SOD	Systems Operations Division (regional)
W/OSO3	Organization code for the Office of Systems Operations' Engineering Division
WSH	Weather Service Headquarters (national)
WSRH	Weather Service Regional Headquarters (Eastern, Southern, Central, Western, Alaska, and Pacific)-

Training and Career Development

When you first begin work for the Department, you normally are given a general introduction to the objectives of your operating unit by the personnel or administrative office. There is usually some immediate on-the-job training by your supervisor too, so that you know exactly what is to be done and what the procedures are.

In addition to the on-the-job training that you receive from your supervisor and others, you may receive formal training aimed at helping you improve your skills or techniques on your present job. Such training may involve classroom instruction, meetings or conferences, exposure to new equipment, and reading of manuals and similar instructional materials. Other training looks more to the future; it imparts more general knowledge or understanding, or prepares you for assignments that you might reasonably be expected to assume in the future. You may be rotated through different work assignments or enrolled in a series of courses as part of

an approved career training program; courses for new or prospective supervisors, for experienced managers, and for employees encountering a new technology are examples of this type of career training.

The many training opportunities that the Department provides are related to the needs of your organization and the size of the training budget. In the interest of your own self-development, you can supplement your on-the-job training and experience with after-hours study in local schools and universities. If you are interested in such self-improvement, your training office or your supervisor may be able to give you helpful suggestions or advice. In some parts of the Department, there are special programs to assist employees in the lower pay levels who are pursuing self-improvement through college-type training. Taking advantage of such training opportunities both on and off the job is an important part of a successful career.



UNITED STATES
OFFICE OF PERSONNEL MANAGEMENT
WASHINGTON, D.C. 20415

OFFICE OF THE DIRECTOR

JUN 22 1994

MEMORANDUM FOR HEADS OF DEPARTMENTS AND AGENCIES

FROM: JAMES B. KING
DIRECTOR

A handwritten signature in dark ink, appearing to read "J. B. King", is written over the printed name of the Director.

Subject: New Legislation on Employee Training

Your agency now has greater flexibility to train its employees because of new legislation contained in the Federal Workforce Restructuring Act of 1994. The legislation fulfills an important National Performance Review (NPR) recommendation to remove restrictions on employee training to help develop a multiskilled workforce in the Federal Government.

Under the new law, which can be implemented immediately, your agency can fund training in support of its mission and performance goals and is no longer limited by a worker's official duties. By broadening the purpose of training, and targeting it to strategic business plans, you can make it a management tool that is more responsive to the current and future needs of your agency; through leadership development retraining, cross-training, continuing professional education and technical training.

The new law also allows agencies to make use of available training services without regard to source, government or nongovernment.

In government today, we face an accelerating rate of change and an increasing demand for productivity and customer service. In all sectors of our economy, investments in training have been proven essential to the enhancement of employee skills and improved organizational performance. The new flexibilities for training give us more ways to do this, and I urge you to use them to tap the full potential of our most important resource - our people.

The attachments provide a summary of the changes to the law and specific new Wording for each section. The office of Personnel Management will be involving agencies and others in the revision of the regulations using negotiated rulemaking procedures. For more information, please contact Joseph Kennedy in the Human Resources Development Group at (703) 235-1016.

Attachments

Information on the Amendments to the Government Employees Training Act (GETA)

On March 30, 1994, the President of the United States signed into law H.R. 3345, the Federal Workforce Restructuring Act of 1994 (Public Law 103-226). The Act includes amendments to the *Government Employees Training Act (GETA)*, which can be implemented by agencies immediately. The amendments are designed to reduce restrictions on training to allow managers to focus on organizational mission and to take advantage of the available training marketplace. The amendments change GETA in the following ways:

- 0 Expand the definition of training from that directly related to the performance of “official duties” to any training that is “mission-related,” allowing agency managers greater flexibility to provide training that will assist in achieving the agency’s mission and performance goals.
- 0 Eliminate the distinction between “Government” and *non-Government” training, thereby allowing managers to take full advantage of available training sources.
- 0 Allow agencies to retrain employees for placement in another agency when such training is in the interest of the Government. Previously, if an agency wished to prepare an employee for placement in another agency, the employee had to be entitled to severance pay.
- 0 Allow agencies to determine when a “continued service agreement with an employee is appropriate and apply it to any training (Government or non-Government) to protect the Government’s investment.
- 0 Change agency reporting requirements to OPM on training expenditures and activities from annually to at least every three years.

For more information, please contact Joseph Kennedy in OPM’s Human Resources Development Group at (703) 235-1016.

Changes to the law 5 U.S.C. 4100 et. seq. (changed material underlined)

4101. Definitions

Paragraph (4), the definition of training is changed to read as follows:

(4) “training” means the process of providing for and making available to an employee, and placing or enrolling the employee in, a planned, prepared, and coordinated program, course, curriculum, subject, system, or routine of instruction or education, in scientific, professional, technical, mechanical, trade, clerical, fiscal, administrative, or other fields which will improve individual and organizational performance and assist in achieving the agency's mission and performance goals.

4102. Exceptions; Presidential authority

No change.

4103. Establishment of training programs

Subsection (a) is changed to read as follows:

(a) In order to assist in achieving an agency's mission and performance goals by improving employee and organizational performance, the head of each agency, in conformity with this chapter, shall establish, operate, maintain, and evaluate a program or programs, and a plan or plans thereunder, for the training of employees in or under the agency by, in, and through Government facilities and non-Government facilities. Each program, and plan thereunder shall --

(1) conform to the principles, standards, and related requirements contained in the regulations prescribed under section 4118 of this title;

(2) provide for adequate administrative control by appropriate authority;

(3) provide that information concerning the selection and assignment of employees for training and the applicable training limitations and restrictions be made available to employees of the agency: and

(4) provide for the encouragement of self-training by employees by means of appropriate recognition of resultant increases in proficiency, skill, and capacity.

Two or more agencies jointly may operate under a training program.

4103.

Subsection (b) is changed to read as follows:

(b)(1) Notwithstanding any other provision of this chapter, an agency may train any employee of the agency to prepare the employee for placement in another agency if the head of the agency determines that such training would be in the interests of the Government.

(2) In selecting an employee for training under this subsection, the head of the agency shall consider-

(A) the extent to which the current skills, knowledge, and abilities of the employee may be utilized in the new position;

(B) the employee's capability to learn skills and acquire knowledge and abilities needed in the new position; and

(C) the benefits to the Government which would result from such training.

4104. Government facilities; use of

No change.

4105. Non-government facilities; use of

Subsections (b) and (c) are eliminated, so that the section reads as follows:

The head of an agency, without regard to section 5 of title 41, may make agreements or other arrangements for the training of employees of the agency by, in, or through non-Government facilities under this chapter.

4106. Non-Government facilities; amount of training limited

Section deleted.

4107. Non-government facilities; restrictions

The section title is changed to: Restriction on degree training.

Subsections (a) and (b) are eliminated and subsections (c) and (d) are redesignated (a) and (b) respectively.

Redesignated subsection (a) reads as follows:

(a) Except as provided in subsection (b) of this section, this chapter does not authorize the selection and assignment of an employee for training, or the payment or reimbursement of the costs of training, for--

(1) the purpose of providing an opportunity to an employee to obtain an academic degree in order to qualify for appointment to a particular position for which the academic degree is a basic requirement; or

(2) the sole purpose of providing an opportunity to an employee to obtain **one** or more academic degrees.

In redesignated subsection (b)(1), the reference to subsection (c) is changed to subsection (a).

4108. Employee agreements; service after training

Subsection (a) has been changed to read as follows:

(a) An employee selected for training for more than a minimum period prescribed by the head of the agency shall agree in writing with the Government before assignment to training that he will--

(1) continue in the service of his agency after the end of the training period for a period at least equal to three times the length of the training period unless he is involuntarily separated from the service of his agency; and

(2) Pay to the Government the amount of the additional expenses incurred by the Government in connection with his training if he is voluntarily separated from the service of his agency before the end of the period for which he has agreed to continue in the service of his agency.

4109. Expenses of training

No change.

4110. Expenses of attendance at meetings

No change.

4111. Acceptance of contributions, awards, and other payments

No change.

4112. Absorption of costs within funds available

No change.

4113. **Agency** review of training needs; annual program reports

Subsection (b) has been changed to read as follows:

(b) Each agency shall report to the Office at least once every 3 years, and at such times and in such form as the Office prescribes, on its programs and plans for training of employees under this chapter. The report shall set forth-

(1) information needed to determine that training is being provided in a manner which is in compliance with applicable laws intended to protect or promote equal employment opportunity; and

(2) information concerning the expenditures of the agency in connection with training and such other information as the Office considers appropriate.

4114. Non-Government facilities; review of training programs

Deleted.

4115. Collection of training information

No change.

4116. Training program assistance

No change.

4117. Administration

No change.

4118. Regulations

Subparagraph (a)(7) is changed to read as follows:

(7) the submission of reports by the agencies on results and effects of training programs and plans and economies resulting therefrom, including estimates of costs of training.

Subsection (b) is deleted and subsections (c) and (d) are redesignated as (b) and (c) respectively.

4119. Training for employees under the Office of the Architect of the Capitol and the Botanic Garden

No change.